BANDWIDTH ALLOCATION CREDIT UPDATING ON A VARIABLE TIME BASIS

ABSTRACT OF THE DISCLOSURE

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A network-node bandwidth-allocation credit method includes computing credits after each completed scan of a packet-tracking queue. Such queue varies tremendously in depth, according to how much network traffic is transitioning

10 through the involved network nodes. A bandwidth traffic-shaping manager operates to control the maximum bandwidth permitted to pass through each network node, e.g., by buffering datapackets that would exceed some service policy limit if forwarded immediately on receipt. As each network

15 node runs less that its policy maximum, it is given a number of credits that collect in a bank account. If a datapacket presents itself that involves passage through the network node, such bank account is checked to see if sufficient bandwidth-allocation credits exist to forward the datapacket

20 immediately. If so, an appropriate deduction of credits is made and the datapacket is forwarded toward its destination.